Larry Hogan, Governor - Boyd Rutherford, Lt. Governor - Van Mitchell, Secretary

November 18, 2016

Public Health Preparedness and Situational Awareness Report: #2016:45 Reporting for the week ending 11/12/16 (MMWR Week #45)

CURRENT HOMELAND SECURITY THREAT LEVELS

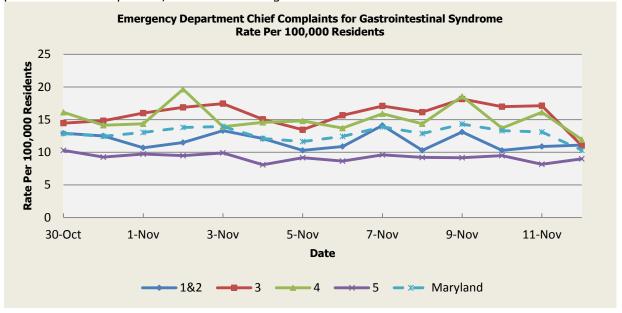
National: No Active Alerts

Maryland: Level Four (MEMA status)

SYNDROMIC SURVEILLANCE REPORTS

ESSENCE (Electronic Surveillance System for the Early Notification of Community-based Epidemics):

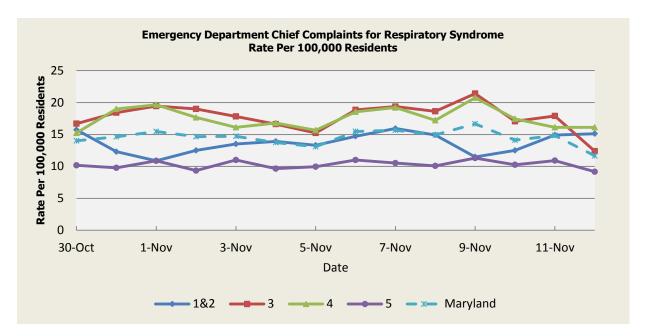
Graphical representation is provided for all syndromes (excluding the "Other" category; see Appendix 1) by Health and Medical Regions (See Appendix 2). Emergency department chief complaint data is presented as rates per 100,000 residents using data from the 2010 census.



There were no gastroenteritis / foodborne outbreaks reported this week.

	Gastrointestinal Syndrome Baseline Data January 1, 2010 - Present								
Health Region	1&2								
Mean Rate*	12.94 14.88 15.42 10.31 13.01								
Median Rate*	12.70 14.47 14.80 10.17 12.75								

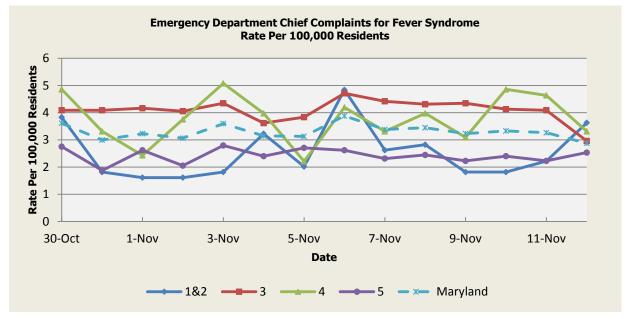
^{*} Per 100,000 Residents



There were no respiratory illness outbreaks reported this week.

	Respiratory Syndrome Baseline Data January 1, 2010 - Present								
Health Region	1&2	1&2 3 4 5 Maryland							
Mean Rate*	11.99 14.12 14.04 9.94 12.3								
Median Rate*	11.70	13.37	13.69	9.52	11.79				

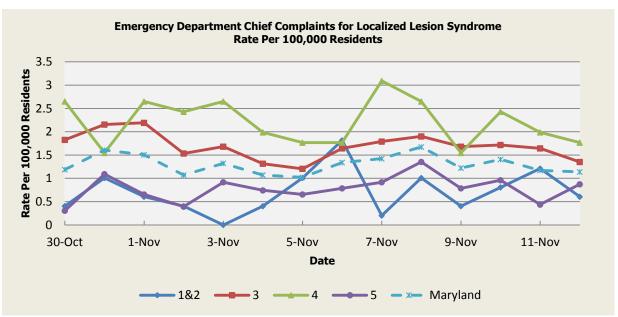
* Per 100,000 Residents



There were no fever outbreaks reported this week.

	Fever Syndrome Baseline Data January 1, 2010 - Present							
Health Region	1&2 3 4 5 Maryland							
Mean Rate*	3.07 3.80 3.93 3.09 3.48							
Median Rate*	3.02 3.62 3.75 2.97 3.35							

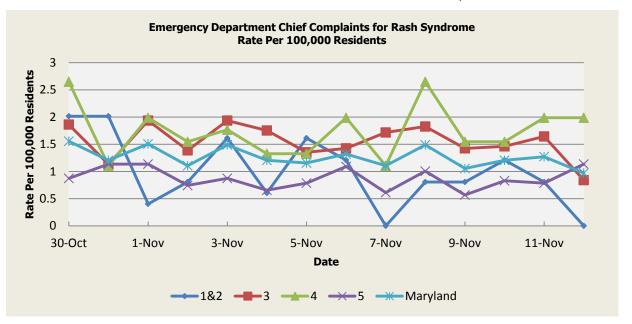
Per 100,000 Residents



There were no localized lesion outbreaks reported this week.

	Localized Lesion Syndrome Baseline Data January 1, 2010 - Present						
Health Region	1&2	3	4	5	Maryland		
Mean Rate*	1.07	1.91	2.03	0.98	1.49		
Median Rate*	1.01	1.86	1.99	0.92	1.44		

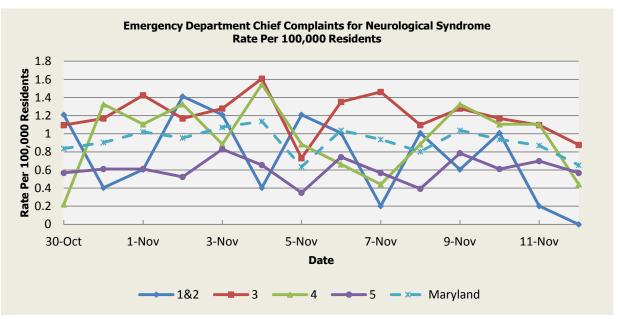
* Per 100,000 Residents



There were two (2) rash illness outbreaks reported this week: 1 outbreak of scabies in a Nursing Home (Region 3); 1 outbreak of scabies in an Assisted Living Facility (Region 4).

	Rash Syndrome Baseline Data January 1, 2010 - Present								
Health Region	1&2 3 4 5 Maryland								
Mean Rate*	1.30 1.75 1.75 1.04 1.44								
Median Rate*	1.21	1.68	1.77	1.00	1.39				

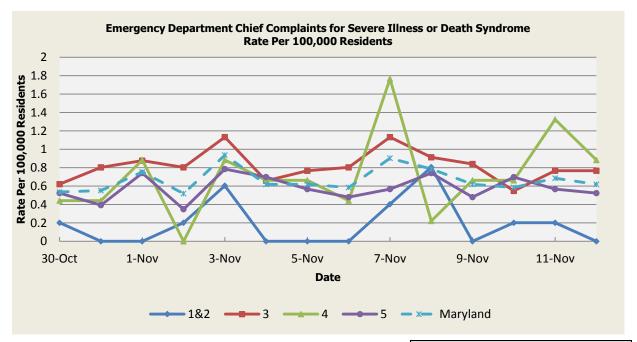
* Per 100,000 Residents



There were no neurological syndrome outbreaks reported this week.

	Neurological Syndrome Baseline Data January 1, 2010 - Present							
Health Region	1&2	3	5	Maryland				
Mean Rate*	0.63	0.62						
Median Rate*	0.60	0.66	0.66	0.44	0.57			

* Per 100,000 Residents

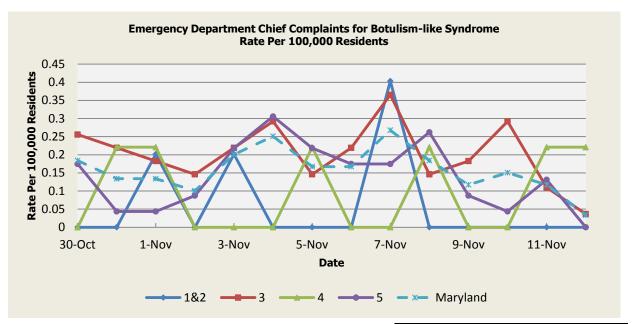


There were no severe illness or death outbreaks reported this week.

	Severe Illness or Death Syndrome Baseline Data January 1, 2010 - Present									
Health Region	1&2									
Mean Rate*	0.70 0.95 0.84 0.44 0.73									
Median Rate*	0.60 0.91 0.88 0.44 0.72									

^{*} Per 100,000 Residents

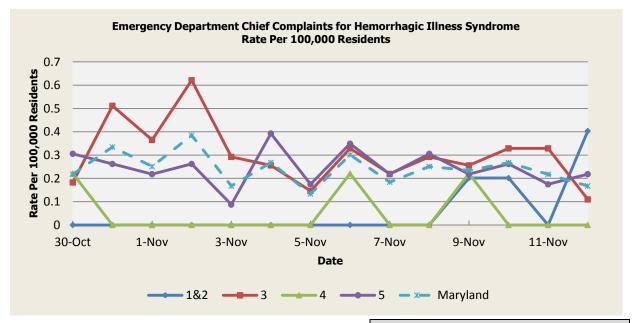
SYNDROMES RELATED TO CATEGORY A AGENTS



There was an appreciable increase above baseline in the rate of ED visits for Botulism-like Syndrome on 10/30 (Regions 3, 5), 10/31 (Region 3,4), 11/1 (Regions 1&2,3,4), 11/3 (Region 1&2,3,5), 11/4 (Region 3,5), 11/5 (Regions 4,5), 11/6 (Regions 3,5), 11/7 (Regions 1&2,3,5), 11/8 (Regions 4,5), 11/9 (Region 3), 11/10 (Region 3), 11/11 (Regions 4,5), and 11/12 (Region 4). These increases are not known to be associated with any outbreaks.

	Botulism-like Syndrome Baseline Data January 1, 2010 - Present							
Health Region	1&2							
Mean Rate*	0.06	0.06 0.08 0.04 0.05 0.06						
Median Rate*	0.00	0.04	0.00	0.04	0.05			

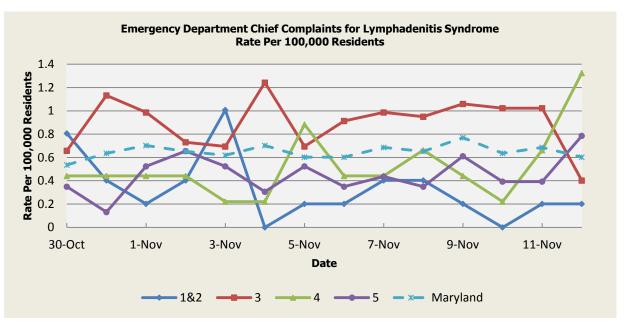
^{*} Per 100,000 Residents



There was an appreciable increase above baseline in the rate of ED visits for Hemorrhagic Illness Syndrome on 10/30 (Regions 4,5), 10/31 (Regions 3,5), 11/1 (Region 3,5), 11/2 (Regions 3,5), 11/3 (Region 3), 11/4 (Regions 3,5), 11/5 (Regions 5), 11/6 (Regions 3,4,5), 11/7 (Regions 3,5), 11/8 (Regions 3,5), 11/9 (Regions 182,3,4,5), 11/10 (Regions 182,3,5), 11/11 (Regions 3,5), and 11/12 (Region 182,5). These increases are not known to be associated with any outbreaks.

	Hemorrhagic Illness Syndrome Baseline Data January 1, 2010 - Present							
Health Region	1&2 3 4 5 Maryland							
Mean Rate*	0.03	0.11	0.03	0.08	0.08			
Median Rate*	0.00	0.04	0.00	0.04	0.03			

^{*} Per 100,000 Residents



There was an appreciable increase above baseline in the rate of ED visits for Lymphadenitis Syndrome on 10/30 (Regions 1&2), 10/31 (Region 3), 11/1 (Region 3), 11/2 (Region 5), 11/3 (Region 1&2), 11/4 (Region 3), 11/5 (Region 4), 11/6 (Region 3), 11/7 (Region 3), 11/8 (Region 3), 11/9 (Regions 3,5), 11/10 (Region 3), 11/11 (Region 3), and 11/12 (Region 3,4). These increases are not known to be associated with any outbreaks.

	Lymphadenitis Syndrome Baseline Data January 1, 2010 - Present								
Health Region	1&2 3 4 5 Maryland								
Mean Rate*	0.31 0.51 0.34 0.31 0.40								
Median Rate*	0.20	0.37	0.22	0.26	0.33				

^{*} Per 100,000 Residents

MARYLAND REPORTABLE DISEASE SURVEILLANCE

	Counts of Reported Cases‡					
Condition		October		Cumula	tive (Year to	Date)**
Vaccine-Preventable Diseases	2016	Mean*	Median*	2016	Mean*	Median*
Aseptic meningitis	2	16.6	16	297	425.6	458
Meningococcal disease	0	0	0	2	5.4	3
Measles	0	0	0	0	0.6	0
Mumps	0	0	0	8	23.2	2
Rubella	0	0	0	1	1.8	1
Pertussis	1	12.2	10	98	187.8	187
Foodborne Diseases	2016	Mean*	Median*	2016	Mean*	Median*
Salmonellosis	13	25.8	21	785	875	874
Shigellosis	5	5	3	131	173.6	212
Campylobacteriosis	15	21	21	703	619.2	626
Shiga toxin-producing Escherichia coli (STEC)	1	1.8	2	77	69.6	71
Listeriosis	0	0.6	0	19	15.2	16
Arboviral Diseases	2016	Mean*	Median*	2016	Mean*	Median*
West Nile Fever	0	0.2	0	1	11.2	10
Lyme Disease	6	36.6	35	1412	1386.2	1305
Emerging Infectious Diseases	2016	Mean*	Median*	2016	Mean*	Median*
Chikungunya	0	0	0	110	0.2	0
Dengue Fever	0	0	0	24	10.2	10
Zika Virus***	0	0.4	0	7	14.6	0
Other	2016	Mean*	Median*	2016	Mean*	Median*
Legionellosis	2	3.6	4	115	135.2	138

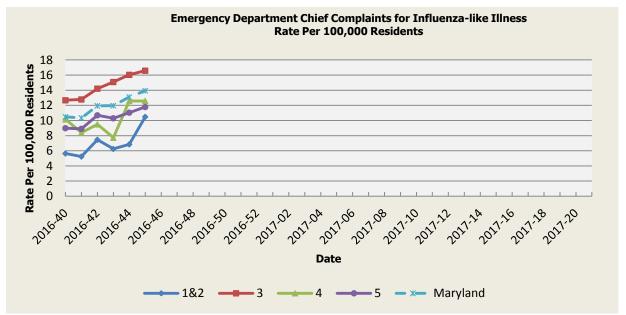
[‡] Counts are subject to change *Timeframe of 2011-2015

^{**}Includes January through current month

^{***} As of November 18, 2016, the total Maryland Confirmed Zika Virus Infections is 108.

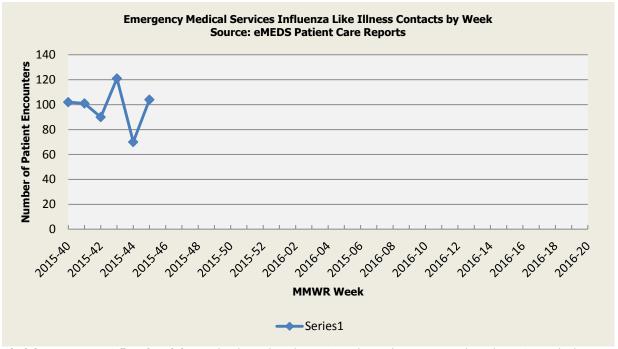
SYNDROMIC INFLUENZA SURVEILLANCE

Seasonal Influenza reporting occurs from MMWR Week 41 through MMWR Week 20 (October through May). Seasonal Influenza activity for Week 45 was: Local Geographic Spread with Minimal Intensity.

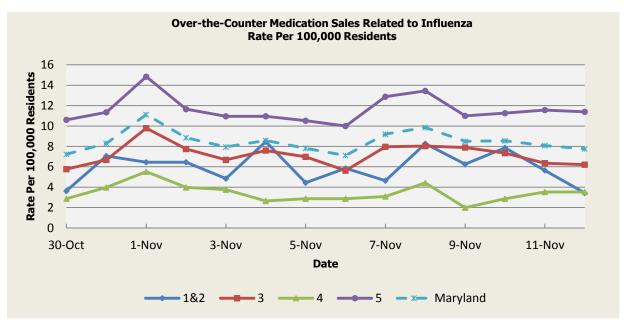


	Influenza-like Illness Baseline Data Week 1 2010 - Present							
Health Region	1&2	1&2 3 4 5 Marylan						
Mean Rate*	9.26	11.58	10.78	10.43	10.88			
Median Rate*	7.66	8.99	9.05	8.03	8.72			

* Per 100,000 Residents



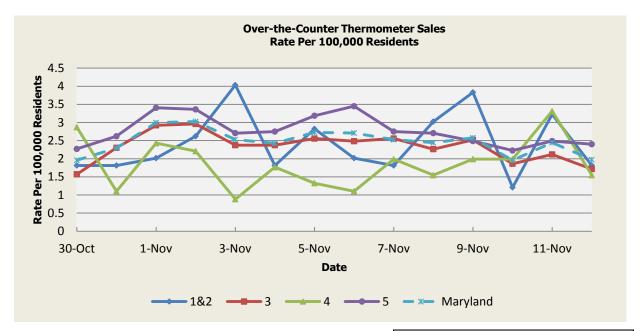
Disclaimer on eMEDS flu related data: This data is based on EMS Pre-hospital care reports where the EMS provider has selected "flu like illness" as a primary or secondary impression of a patient's illness. This impression is solely based on the signs and symptoms seen by the provider, not on any diagnostic tests. Since these numbers do not include all primary or secondary impressions that may be seen with influenza the actual numbers may be low. This data is reported for trending purposes only.



There was an appreciable increase above baseline in the rate of OTC medication sales on 11/1 (Regions 3,4), 11/4 (Regions 1&2), 11/8 (Regions 1&2), and 11/10 (Region 1&2). These increases are not known to be associated with any outbreaks.

	OTC Sales Baseline Data January 1, 2010 - Present				
Health Region	1&2	3	4	5	Maryland
Mean Rate*	3.86	4.69	2.60	8.21	5.79
Median Rate*	2.82	3.98	2.21	7.60	5.19

* Per 100,000 Residents



There was not an appreciable increase above baseline in the rate of OTC thermometer sales this week.

	Thermometer Sales Baseline Data January 1, 2010 - Present				
Health Region	1&2	3	4	5	Maryland
Mean Rate*	3.48	3.30	2.54	4.50	3.72
Median Rate*	3.23	3.07	2.43	4.10	3.46

^{*} Per 100,000 Residents

PANDEMIC INFLUENZA UPDATE / AVIAN INFLUENZA-RELATED REPORTS

WHO update: The current WHO phase of pandemic alert for avian influenza is ALERT. Currently, the avian influenza H5N1 virus continues to circulate in poultry in some countries, especially in Asia and northeast Africa. This virus continues to cause sporadic human infections with some instances of limited human-to-human transmission among very close contacts. There has been no sustained human-to-human or community-level transmission identified thus far.

Influenza A (H7N9) is one of a subgroup of influenza viruses that normally circulate among birds. Until recently, this virus had not been seen in people. However, human infections have now been detected. As yet, there is limited information about the scope of the disease the virus causes and about the source of exposure. The disease is of concern because most patients have been severely ill. There is no indication thus far that it can be transmitted between people, but both animal-to-human and human-to-human routes of transmission are being actively investigated.

Alert phase: This is the phase when influenza caused by a new subtype has been identified in humans. Increased vigilance and careful risk assessment, at local, national and global levels, are characteristic of this phase. If the risk assessments indicate that the new virus is not developing into a pandemic strain, a de-escalation of activities towards those in the interpandemic phase may occur. As of <u>October 3, 2016</u>, the WHO-confirmed global total (2003-2016) of human cases of H5N1 avian influenza virus infection stands at 856, of which 452 have been fatal. Thus, the case fatality rate for human H5N1 is approximately 53%.

Avian Influenza:

HPAI H5N8 (GERMANY): 14 Nov 2016, The German state of Schleswig-Holstein reports widened protection measures to fight against an outbreak of the H5N8 influenza virus among wild birds, which has spread to poultry. Over the weekend, 30 000 chickens were culled as a precaution at a farm close to the northern city of Grumby. The affected breeder farm is currently being disinfected and cleaned. At this point in time, five (5) German states have seen bird flu outbreaks, including the southern state of Baden-Württemberg, which reported cases around Lake Constance, which is bordered by Switzerland and Austria. The state of Saxony also confirmed that the H5N8 virus was detected in a dead heron at a lake near the city of Leipzig. Read More: http://www.promedmail.org/post/4617139

H7N9 (CHINA): 11 Nov 2016, The Centre for Health Protection (CHP) of the Department of Health (DH) received notification of 2 additional human cases of avian influenza A(H7N9) from the National Health and Family Planning Commission (NHFPC), and again urged the public to maintain strict personal, food, and environmental hygiene, both locally and during travel. The 2 patients are a female farmer aged 77 from Huzhou, Zhejiang; and a man aged 89 from Suzhou, Jiangsu; both in serious condition. From 2013 to date, 777 human cases of avian influenza A(H7N9) have been reported by the Mainland health authorities. Read More: http://www.promedmail.org/post/4624064

H5N8 (ISRAEL): 13 Nov 2016, Israel reports a case of avian influenza H5N8 in a flock of 21 week old heavy breeders in Hefzi-Ba (north part of Israel), in which 40 000 chickens will now be culled. Israel becomes the first Middle Eastern country to join the fast-growing list of countries infected by the highly pathogenic avian influenza strain H5N8. Most likely, the virus has been introduced by migrating birds. The infected site, Kibbutz Heftziba, north east Israel, is situated close to a nature reserve, within an area rich in fish ponds. This area is visited by large numbers of migrating birds. Read More: http://www.promedmail.org/post/4626107

NATIONAL DISEASE REPORTS

ACUTE FLACCID MYELITIS (ARIZONA, WASHINGTON): 11 Nov 2016, Local Navajo County, Arizona Health Officials are investigating the possible cause of two (2) cases of acute flaccid myelitis (AFM), a rare, non-contagious disease that mimics polio and is striking children nationwide. The U.S. Centers for Disease Control says AFM-diagnosed patients' symptoms have been most similar to those caused by certain viruses, including poliovirus, non-polio enteroviruses, adenoviruses, and West Nile

virus. Enteroviruses can cause neurologic illness, including meningitis. CDC confirms 37 AFM cases in the nation so far. Most patients are children. Read More: http://www.promedmail.org/post/4637077

FUNGAL INFECTION (NYC): 17 Nov 2016, On 24 May 2016, the New York City Department of Health and Mental Hygiene notified CDC of 2 cases of *Exophiala dermatitidis* bloodstream infections among patients with malignancies who had received care from a single physician at an outpatient oncology facility (clinic A). Review of 1 Jan 2016 - 31 May 2016 microbiology records identified *E. dermatitidis* bloodstream infections in 2 additional patients who also had received care at clinic A. All 4 patients had implanted vascular access ports and had received intravenous (IV) medications, including a compounded IV flush solution containing saline, heparin, vancomycin, and ceftazidime, compounded and administered at clinic A. Read More: http://www.promedmail.org/post/4608558

BURKHOLDERIA CEPACIA (USA): 13, Nov 2016, The number of *Burkholderia cepacia* bloodstream infections associated with contaminated prefilled saline flush syringes has increased by more than 100 in the past month, according to the most recent data from the Centers for Disease Control and Prevention (CDC). Since 9 Oct 2016, Promed reported at least 36 potential cases of *B. cepacia* linked to Nurse Assist I.V. Flush Syringes in 4 states. One month later, the CDC has reported 149 cases in 5 states (Delaware-4, Maryland-12, New Jersey-52, New York-55, and Pennsylvania-26). 6 deaths have been reported; however, it has not been determined whether the deaths associated with this outbreak were caused by the *B. cepacia* infection, the patients' underlying health conditions, or another cause. The majority of these cases have occurred in patients residing at long-term care or rehabilitation facilities who were receiving intravenous (IV) fluids and/or antibiotics through central venous catheters. Contaminated prefilled saline flush syringes manufactured by Nurse Assist, Haltom City, Texas, are being investigated as the source of the bacteria. Nurse Assist is therefore performing a voluntary recall and removal of all its prefilled saline flush syringes. Read More: http://www.promedmail.org/post/4629138

INTERNATIONAL DISEASE REPORTS

CAMPYLOBACTERIOSIS (NEW ZEALAN): 10 Nov 2016, The Hawke's Bay District Health Board [DHB] reports 45 people, mostly over 70, were admitted to hospital with campylobacteriosis. The DHB has conducted 4 surveys since the event in August 2016, and the latest figures brought the estimated total number of residents affected by gastroenteritis to 5530 or 39 percent of Havelock North's population, 1072 of those confirmed cases. The total number of people who had developed the rare complication from campylobacteriosis, Guillan-Barré Syndrome (GBS), was reported to be 3 people. As the incubation time is up to 4 weeks, it was considered that any new cases now would not be linked to the original outbreak. Of the estimated 5530 residents who were affected, 32 percent had a recurrence of the bug, and as of 28 Sep 2016, 4 people were experiencing ongoing symptoms. At the time an estimated 78 percent of people who had symptoms took time off work or school. Read More: http://www.promedmail.org/post/4636644

FOODBORNE ILLNESS (FRANCE): 13 Nov 2016, Analyses is under way to determine if some 100 detainees from the Dijon prison were the victims of food poisoning. The health treatment center at the Dijon prison had to face an influx of patients on the evening of Sat 12 Nov 2016 complaining of stomach aches. A dish of fish served with mayonnaise could be the cause of this poisoning which affected about 100 detainees out of approximately 260. The aim is to clarify whether this was a food-related problem or the cause is in the preparation process. Read More: http://www.promedmail.org/post/4628005

STREPTOCOCCUS (ENGLAND): 16 Nov 2016, Health Officials from the South West region of England report that the number of scarlet fever cases across the region has increased by more than 50 per cent in the last week: a total of 20 cases, up from 13 in the previous week, and an overall 50 year high in the UK. In Somerset county, three (3) people have been diagnosed with scarlet fever in the past week: 1 in South Somerset and 2 in the Sedgemoor district. Read More: http://www.promedmail.org/post/4634640

OTHER RESOURCES AND ARTICLES OF INTEREST

More information concerning Public Health and Emergency Preparedness can be found at the Office of Preparedness and Response website: http://preparedness.dhmh.maryland.gov/ or follow us on Facebook at www.facebook.com/MarylandOPR.

More data and information on influenza can be found on the DHMH website: http://phpa.dhmh.maryland.gov/influenza/fluwatch/Pages/Home.aspx

Please participate in the Maryland Resident Influenza Tracking System (MRITS): http://flusurvey.dhmh.maryland.gov

NOTE: This weekly review is a compilation of data from various surveillance systems, interpreted with a focus on a potential BT event. It is not meant to be inclusive of all epidemiology data available, nor is it meant to imply that every activity reported is a definitive BT event. International reports of outbreaks due to organisms on the CDC Critical Biological Agent list will also be reported. While not "secure", please handle this information in a professional manner. Please feel free to distribute within your organization, as you feel appropriate, to other professional staff involved in emergency preparedness and infection control.

For questions about the content of this review or if you have received this and do not wish to receive these weekly notices, please e-mail us. If you have information that is pertinent to this notification process, please send it to us to be included in the routine report.

Prepared By:

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Appendix 1: ESSENCE Syndrome Definitions and Associated Category A Conditions

Syndrome	ESSENCE Definition	Category A Conditions
Botulism-like	(Botulism or (DifficultyFocusing and DifficultySpeaking) or (DifficultySpeaking and DifficultySwallowing) or (DifficultySwallowing and DifficultyFocusing) or DoubleVision or FacialParalysis or GuillainBarre or Ptosis) and not GeneralExclusions	Botulism
Fever	(Chills or (FeverPlus and (Drowsiness or Seizure)) or FeverOnly or SepsisGroup or ViralSyndrome) and not GeneralExclusions	N/A
Gastrointestinal	(AbdominalCramps or AbdominalPainGroup or Diarrhea or FoodPoisoning or Gastroenteritis or GIBleeding or Peritonitis or Vomiting) and not (GeneralExclusions or Gynecological or Obstetric or Reproductive or UrinaryTract)	Anthrax (gastrointestinal)
Hemorrhagic Illness	(FeverOrChills and (AcuteBloodAbnormalitiesGroup or BleedingFromMouth or BleedingGums or GIBleeding or Hematemesis or Hemoptysis or Nosebleed or Petechiae or Purpura)) and not GeneralExclusions	Viral Hemorrhagic Fever
Localized Lesion	(Boils or Bump or Carbuncle or DepressedUlcer or Eschar or Furuncle or InsectBite or SkinAbscess or (SkinSores and not AllOverBody) or SkinUlcer or SpiderBite) and not (GeneralExclusions or Decubitus or Diabetes or StasisUlcer)	Anthrax (cutaneous) Tularemia
Lymphadenitis	(BloodPoisoning or Bubo or CatScratchDisease or SwollenGlands) and not GeneralExclusions	Plague (bubonic)
Neurological	(([Age<75] and AlteredMentalStatus) or (FeverPlus and (Confusion or Drowsiness or Petechiae or StiffNeck)) or Delirium or Encephalitis or Meningitis or UnconsciousGroup) and not GeneralExclusions	N/A
Rash	(ChickenPox or Measles or RashGeneral or Roseola or (Rubella and not Pregnancy) or Shingles or (SkinSores and AllOverBody) or Smallpox) and not GeneralExclusions	Smallpox
Respiratory	(Anthrax or Bronchitis or (ChestPain and [Age<50]) or Cough or Croup or DifficultyBreathing or Hemothorax or Hypoxia or Influenza or Legionnaires or LowerRespiratoryInfection or Pleurisy or Pneumonia or RespiratoryDistress or RespiratoryFailure or RespiratorySyncytialVirus or RibPain or ShortnessOfBreath or Wheezing) and not (GeneralExclusions or Cardiac or (ChestPain and Musculoskeletal) or Hyperventilation or Pneumothorax)	Anthrax (inhalational) Tularemia Plague (pneumonic)
Severe Illness or Death	CardiacArrest or CodeGroup or DeathGroup or (Hypotension and FeverPlus) or RespiratoryArrest or SepsisGroup or Shock	N/A

Appendix 2: Maryland Health and Medical Region Definitions

Health and Medical Region	Counties Reporting to ESSENCE		
	Allegany County		
Decience 1 % 2	Frederick County		
Regions 1 & 2	Garrett County		
	Washington County		
	Anne Arundel County		
	Baltimore City		
Region 3	Baltimore County		
Region 3	Carroll County		
	Harford County		
	Howard County		
	Caroline County		
	Cecil County		
	Dorchester County		
	Kent County		
Region 4	Queen Anne's County		
	Somerset County		
	Talbot County		
	Wicomico County		
	Worcester County		
	Calvert County		
	Charles County		
Region 5	Montgomery County		
	Prince George's County		
	St. Mary's County		

